THE MALAYAN ELEPHANT.

(Elephas maximus indicus).

BY

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(With 8 plates).

Introduction.

In the Abstr. Proceedings of the Zoological Society of London (No. 130, 1914, page 20), Richard Lydekker designated the Malayan Elephant as a sub-species of *Elephas maximus*, giving it the name of *Elephas maximus hirsutus*.

On page 285 of the Proceedings of the Zoological Society, 1914, there is an amplification of this dictum.

The sub-species was made on the following grounds :—

> '. . . characterized by the square instead of triangular ear, the early date at which its upper margin is bent over, and the presence in the young condition, at least in some cases, of a thick coat of black and in part bristly hair . . . "

There is, I think, little doubt that the above description does not apply to the normal wild Malayan elephant and it seems that the sub-species was made on insufficient data.

I have seen many young wild Malayan elephants from babies still in the pink stage to those of four or five feet in height, but I have never noticed a thick coat of hair on any of them.

I have handled several baby elephants and I must have noticed had they been covered with thick hair. All Malayan elephants have a certain amount of hair or bristles on parts of their bodies but not in sufficient quantities to differentiate them from other Asiatic sub-species.

Also the description of the shape of the ear does not agree with the shapes of the ears of mature or semi-mature wild elephants that I have seen. The photographs illustrating this article show the usual triangular ear which we associate with *Elephas maximus*, and although it is possible that some abnormality presented itself to Lydekker which led him to believe that a square ear was typical of the Malayan elephant, it is not a normal characteristic in those I have seen. It is true that in the Malayan elephant the upper margin of the ear is bent over at an early age. I have a photograph of a young wild elephant, not more than six feet high, showing the fold on the upper margin of the ear.

In a recent publication entitled *Handlist of Malayasian Mammals*, compiled by Mr. F. N. Chasen, Director of the Raffles Museum, Singapore, Straits Settlements, he disagrees with the deductions of Lydekker and suggests *Elephas maximus indicus* as the nomenclature for the Malayan sub-species.

I think that Lydekker's premises were wrong. I agree with Mr. Chasen that as a sub-species has been created for the Malayan elephant it should be called *indicus* and not *hirsutus*. Chasen himself writes—

'It has not yet been demonstrated that the elephants of Siam and the Malay Peninsula differ from the Indian form . . .'

It seems therefore that *indicus* is the more suitable name if *hirsutus* can be shown to be inappropriate. In remote ages wild elephants came down the Malay Peninsula from the north, and until it is shown that the elephants in Malaya have some more or less general characteristics which distinguish them from the Indian variety I think we should be content to call them *Elephas maximus indicus*.

I cannot agree to the claim put forward that the Malayan elephant is of a smaller size than the Indian elephant. I have known of several elephants which have been shot in Malaya which measured over 9′ 6″ at the shoulder. I shot one myself measuring 9′ 6½″, and Mr. E. Frederiksen shot one measuring 9′ 8½″. Although elephants in India have been recorded as having measured over ten feet such occurrences have been rare and may well be considered abnormal. Blanford in *Fauna of British India* states that the height of adult males does not as a rule exceed 9′ 0″ at the shoulder and I should say that this is correct for the Malayan form.

In Malaya tusks weighing over 70 pounds the pair are not uncommon and, as I have shown later on, tusks up to over 140 pounds the pair have been obtained. Such a weight however should be considered very exceptional.

During the last few decades the numbers of firearms has increased so much in Malaya that many elephants have been shot under the mistaken idea that allowing such indiscriminating slaughter benefits the cultivator by saving his crops; a fallacy which is very apparent to anyone who has lived in Malaya for many years. Many elephants are wounded and injured by this method and I think it is fair to say that few male elephants in Malaya reach a ripe old age. This might account for the comparatively small ivory that is generally obtained in Malaya.

Before passing on to the main theme of this article I should like to mention the fact that the origin of the wild elephants in Borneo is somewhat obscure. They are found only in the northern portion of the island; in that part of the territory known as British North Borneo.

I am informed that the earliest mention made of elephants in Borneo is by Pigafetti, Chronicler of Magellan, who records that during a visit to Brunei in 1521 they were conveyed to the palace on caparisoned elephants. But this does not prove that they were indigenous to Borneo.

There is a persistent story that a Prince from the West presented the Rajah of Solo with some tame elephants, but the Raja found that these elephants were rather a nuisance so he had them shipped to the east coast of Borneo and there let loose.

If this is true it may account for the wild elephants in North Borneo, but we are still left without knowledge of their exact origin.

The only clue, and a very slender one, is the fact that many, possibly most, of the mature male elephants in Borneo have very straight tusks and do not conform with the usual curved tusks of *Elephas maximus*.

It is possible that the Borneo elephants came originally from Sumatra. Dutch records will show whether straight tusks are common or not amongst the wild herds in Sumatra. I have seen photographs of elephants shot in Sumatra and their tusks appeared to be straighter than those I have generally seen in Malaya.

Distribution of the Malayan Elephant.

Wild elephants, not so many decades ago, were widely distributed throughout Peninsular Malaya, but owing to the opening up of the country for commercial purposes there is now probably not a tenth of the number of elephants that once roamed the Malayan jungle.

The elephant has not been wisely conserved; it has been looked upon as a menace to progress and quite unnecessary loopholes have been permitted in the Game Laws to enable *Elephas maximus* to be destroyed on the weakest grounds. This is not the place to go into the harm which has resulted from the wounding of many elephants by irresponsible persons, who are allowed to shoot at an elephant in alleged defence of crops with any weapon, however inadequate: but such actions have resulted in large numbers of elephants being wounded and becoming rogues, thus establishing a vicious circle difficult to deal with.

At the present time on the West Coast of Malaya there are few elephants left, and those left are by no means left in peace. In many places untidy native cultivation is an attraction to elephants, and as many of these clearings are allowed to take care of themselves for weeks at a time much damage is sometimes done to what is called 'cultivation'. There is then a clamour for more executions, so the Malayan elephant's hopes for the future are very uncertain. Perhaps due to the persecution that they have been subject to, elephants in the higher country in Malaya have taken to travelling long distances right up to the tops of the mountains. I have seen the tracks of elephants as high as 5,000 feet altitude, but they have been seen even on the tops of the highest mountains which reach to 7,000 feet. Generally these wanderers are solitary bulls, but not necessarily old animals, and disturbance may have something to do with their long treks. I have seen herd elephants between the 2,000 feet and 3,000 feet contour, but they were feeding on bamboo at the time, which was no doubt the attraction, and their presence may be considered as a normal migration during the bamboo season.

The elephant is not used to any extent in Malaya for transport and very little for show. There are no tribes here, as in India, who have made a living for generations by tending elephants, and there is not the same desire to conserve the elephant for purposes of utility.

In Burma and Siam they are extensively used in the teak forests, but here there is nothing to correspond to that class of labour.

There are no reserves on the West Coast which are of any use to elephants, except possibly a sanctuary in Johore near Segamat. With that one exception I think we must recognize that the Malayan elephant on the west side of the Peninsula is doomed to extinction, although for many years an occasional animal or two may be found in the mountainous country.

On the East Coast, the position is better because the country is less opened up and there are at least two reserves which should prove the saving of the Malayan elephant as a species. The King George V National Park, an area of nearly 1,800 square miles, extending over portions of the three States of Pahang, Trengganu and Kelantan, is mostly mountainous terrain, but still is favourable in many parts for elephant.

The danger lies in the defective and inadequate legislation which has been passed to guard this sanctuary. Unless great care is taken, the Park will become a refuge for wildlife, including elephants, in name only.

I do not think that wild elephants have been recorded as having been found on Singapore Island, but they have reached the southernmost portion of the Peninsula and have roamed the jungles from coast to coast. The whole of the Malay Peninsula was their domain in days not so far past, and there is still sufficient of their natural environment left to make it possible, with wise conservation, to save them from extermination.

The Malayan Elephant and His Jungle.

Malayan elephants spend most of their time in primeval forest and it is, I think, only after their true habitat has become too restricted for their needs that they have to forage for food in secondary jungle, and so tend to become a nuisance to cultivators and contract the habit of going on to cultivated or semi-cultivated land.

The Forest Reserves in the low country of Malaya are no permanent refuges for elephant because they are at times much disturbed, and elephants like all other wild animals hate disturbance.

The Malayan elephant is compelled to travel great distances in search of food. It is a discriminative eater and does not take just whatever comes to hand. G. P. Sanderson in his well-known book *Thirteen Years Among the Wild Beasts of India* writes:

> 'An elephant in captivity should be supplied with 800 pounds of good fodder every day, of which it will eat about 650 pounds and waste about 150 pounds.'

It is unlikely that a wild elephant eats less than an elephant in captivity, so it does not require any great stretch of the

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imagination to appreciate that a mature wild elephant has to do a good deal of foraging to satisfy its appetite. Anyone, who has tracked wild elephants in virgin jungle, knows that they cover many miles through the forest during the day, picking up a little food here and there, but doing most of their feeding during the night.

Although a herd of elephants probably has more or less defined parts of the country in which it feeds, and although this terrain covers a big area, when elephants have been much disturbed and their domain restricted by the opening up of the country, then damage to cultivation is likely to occur.

For many years in the Plus Valley in Perak, a district well patronized by rubber planters, considerable damage was done to para rubber cultivation. When giving evidence before the Wild Life Commission of Malaya in 1930, European witnesses stated that during twenty years of endeavour to deal with the elephants that raided their estates in that area, 36 elephants had been shot; the value of rubber trees destroyed by elephants was estimated at £20,000; and there were more elephants than ever.

However a scheme was inaugurated on the recommendation of the Commission that overcame the difficulties, which as records show was a complete success. The useless killing of elephants ceased. By a system of patrols, the cost of which was met half by the government and half by the estates, elephants were prevented from reaching the planted area. The result of this action shows that indiscriminate shooting of elephants, as in this case, was not only unnecessary but useless as a complete defence to the menace from marauding elephants. The Plus Valley scheme can well be considered as an example to others who wish to protect cultivation and at the same time preserve wildlife.

Since those days the electric fence has come into use and I have no doubt will prove, where properly erected and looked after, a very efficient check against wandering elephants.

Where land is given out in isolated blocks in elephant country for, what will most certainly result, in 'fugitive cultivation', where the main game trails are cut up, and where temporary crops are planted in, what might be described as favourite stamping grounds for the larger fauna, there is bound to be trouble from elephants.

Under such conditions they will sometimes be driven away, sometimes wounded, sometimes even killed, so, in such country, they move on and on in search of that solitude and tranquillity which must be part of their normal life. Thus they get forced back and back into unopened mountainous country which is not a congenial environment, nor can it be a permanent part of their true habitat, and is not, I believe, suitable country for normal breeding.

When with a herd, a newly born elephant is a fascinating little animal; fussing around amongst the legs of its mother; waving about a much undeveloped trunk; very important; and with its pinkish skin making a striking note in the picture. This pinkish colour is probably retained for some weeks, but it is difficult to

make accurate observations on colour because the wild elephant is so often covered with mud.

I recollect on one occasion, when hunting elephants, trying to locate a tusker which I knew was with the herd. While doing this some of the herd moved uphill away from me and ran across the trail we had made a few minutes before when making our approach. Immediately a shrill trumpet gave the alarm and an avalanche of elephants came down the hill towards our position. I slipped behind a tree, a big comfortable tree, expecting the elephants to sweep past me. None of them came unpleasantly close; but an old cow, another female and a tiny calf seemed to deliberately change their direction and stopped a few yards on the other side of my tree. I had a good view of the calf. Its little trunk, still much undeveloped, waved about aimlessly from under its mother. There was no mistaking that the calf had flesh-coloured skin which certainly had no long hair on it. Presently these elephants moved off down the hill to join the rest of the herd; not altogether to my disappointment! I never caught up to the herd again and so did not see the tusker.

I do not know how long the calves suckle their mothers. Plate No. 1 shows a young calf with its mother and clearly shows the female's left breast full of milk. This calf was not very small but I could not estimate its age.

So soon as the calves get a little bigger they become independent, and although they do not wander far from their mother or from the other female, which is generally in attendance, and about which I have something to say later on, they act exactly like children and frequently become a nuisance to their elders. It is no uncommon thing, when in the vicinity of a herd of elephants, to hear a shrill squeal from a baby elephant, which is in protest to some correction by its mother generally a whack from her trunk. As Plate No. 1 shows a small elephant, even when suckling, will take its place at a salt lick amongst the big elephants, and try to get its share of the sulphur water with the best of them.

In that particular case I think the baby was not very successful because it wandered away from the lick after a minute or so and seemed uncertain what to do with itself. The playfulness of elephants even when mature is well shown in Plates Nos. 3 and 4 where a young tusker climbs up on to a log just for fun. Plate No. 4 shows by the expression on his face how pleased he was with himself, and well he might be, because he balanced himself on a log split down the middle and not more that twelve inches wide in the broadest part. Having done that he proceeded to walk along the log, turned round, retraced his steps, got down from the log more or less where he had got up, and then as Plate No. 5 shows disappeared out of the picture. The elephant shown in the illustration was one of a herd of seven, three of which were tuskers, but all young ones. There was a calf in the herd about four feet high. The log which attracted the attention of the young tusker has been used many times by elephants doing the same trick. It is a live log and the abrasions on the bark

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caused by the elephants' feet or toe nails grow into little knobs with which the top of the log is covered. These knobs are shiny and polished by the action of numerous elephants amusing themselves on the log.

This herd of elephants was in the same lick as the one shown in Plate No. 1, and had a great time. But not until the leading cow accompanied by a young tusker, probably her son, had had their fill, would any of the others go near the lick.

I have seen this happen more than once. Twice have I seen two tuskers come into the lick when the bigger one would have his fill first, the smaller one patiently waiting his turn. In one case the smaller one got fed up and after circling around for some time left the lick without getting his medicine at all.

I am sure elephants show great respect for their elders and the younger ones would never think of disputing their rights to the first place in a lick. I have seen the same thing happen with seladang (*Bibos gaurus*), and I think we might well take a lesson in these matters from wild animals whose behaviour under normal conditions is exemplary.

One very striking habit of wild elephants, which I have often seen, is that when an elephant is very small another female elephant will attach itself to the mother appearing to act as a 'nurse' or protector. Those Malays, who are well-versed in jungle lore, recognize this phenomenon and call the second elephant the *pengasoh,* meaning 'nurse' or 'foster-mother'. The incident I have related of the little pink calf coming so close to me was enhanced in interest by the presence of a second cow. I have often seen two cows and one calf and I believe that it is by design and not just accident. Malay jungle gossip says that the *pengasoh* is the one to watch if approaching a herd wherein there is a small calf. The nurse, they state, will take the offensive while the mother bustles away with the calf. I have never seen this happen. Malays cannot be considered reliable witnesses, because they generally mistake quick movements of wild animals as presaging an attack, and do not wait to observe what really happens.

Cow elephants always, I believe, remain all their lives with their herd or with one or two companions. They are generally separated from the herd when calving but not always. I remember an extraordinary incident that happened on a rubber plantation in Negri Sembilan many years ago. An elephant had a calf sometime during the night on the estate amongst the rubber trees. She was with a herd, and after having heard tremendous trumpetings during the night, some of the labourers went to investigate the next morning. They found no elephants but discovered an enormous after-birth, which alarmed them so much that they reported to the manager they had found the remains of some extraordinary thing amongst the rubber, which they believed had been left there by the elephants! The manager had it well and truly buried. That is the story I had from the manager whom I knew well. He told me that the elephants had left the estate immediately and were not in the vicinity for some time. It appears that, in this case

anyway, the baby elephant was able to get away or be moved away a few hours after it was born.

In the dense jungle of Malaya it is not easy to observe the habits of wild animals even elephants, and one's knowledge of their lives is bound to be meagre. When hunting them one has plenty of opportunity of learning how they react when frightened and occasionally, if you hunt enough, when they are angry; but except to know what they are likely to do under certain circumstances, for instance after heavy feeding or when anxious to catch up a herd, one really learns very little about the elephant that lives in a forest.

But, if one takes to the art of photography and tries to get pictures of elephants one then has a chance of learning something about them when undisturbed, when unafraid, and when going about their ordinary occasions. I hunted elephants over a period of thirty-five years, until about five years ago, when age precluded me from further strenuous hunting. So I took up wildlife photography in the Malayan jungle and during the last five years I have learnt more about the normal behaviour of elephants and other large game than I learnt in all the previous years.

However, before I go on to tell you about the observations I have made of elephants going about their daily rounds and of their visits to salt licks, I should like to give you a few instances of what I gleaned when I was still a hunter.

I often noticed, when following solitary elephants, that, when they fed extensively on a certain creeper known to Malays as *akar beluru* and to Science as *Entada schefferi,* they invariably travelled far after such a meal. Possibly that particular creeper has some sustaining effect on the elephant which acts as an incentive to greater and unusual effort; and although this may seem a rather far-fetched theory, I have noticed this stimulating effect on an elephant's activities too often to be mistaken about it. On the other hand, when elephants have been feeding on a palm called *bayas* in Malay and *Oncosperma horrida* in the text books, they are lethargic and unwilling to travel very far. In fact I have known occasions when an elephant, having fed well but possibly not too wisely on this palm, would not travel more than a few hundred yards from where there was a stand of this plant before he would lie down for a nap; only to return again on waking up to have another gorge. Possibly the cabbage of this palm may contain something which acts as a soporific on the elephant? The cabbage is excellent eating for human beings.

The elephant's method for getting at the pith of the palm is interesting. *Bayas* is covered with an extremely tough, long and nasty thorn which points downwards, so the elephant presses his forehead against the palm which, if not too old, is pushed over. He avoids getting the thorns into his forehead because he presses with the grain so to speak. Having got his tree down he proceeds to stamp along the upper half of the trunk from the leaves at the top, and when it is well and truly reduced to a pulp he eats as much of the pith as he thinks he can digest. He eats all the cabbage! This takes a long time because the *bayas* palm is never

very big, probably never more than two feet round, and not much pith can be picked out at one time. I have often thought when looking at a *bayas* that had been pushed over, stamped almost flat with all the pith removed, how extraordinarily patient and persistent the animal must have been to pick out the centre of the tree and leave everything else.

I have never known elephants eat the leaves or roots of wild ginger. Malays call these plants *tepus* or *pua*. There are so many varieties of wild ginger in Malaya that it is quite possible elephants may eat some of those I have never come across. I have often seen where they have stamped about and even pulled up some wild ginger roots but I could never find signs of any of it having been eaten.

Elephants are fond of many palms and will feed extensively off the roots and shoots of *bertam* (*Eugeissona triste*). This palm is considered by Forest Officials to be a pest because it grows very rapidly and extensively, preventing the regeneration of the useful forest. *Bertam* is a valuable thatch for houses and as such the leaves are much used by the peasants. It is only found in primeval forest not in secondary jungle. I have noticed where elephants were once fairly numerous and where now they are not to be found that the *bertam* had increased very much and I could only suppose that so long as there were elephants in that part of the jungle they kept the *bertam* in check? That at least can go to their credit account.

Elephants are fond of most of the varieties of bamboo of which some large varieties, such as *Dendrocalmus flagellifer*, are common in Malaya in the higher country. When bamboos throw out fresh shoots elephants are particularly attracted to the vicinity, but they are liable to feed on bamboos at any time.

Bamboos in the Malayan jungle produce shoots almost every month in the year, and although in the hill country there is no real bamboo jungle, that is to say no great extent of bamboo except where it is a secondary growth on old Sakai (aborigines) clearings, there is no shortage of bamboo for elephants throughout most of the undeveloped country.

I have mentioned how mischievous young elephants can be, and when a herd raids cultivation or solitary elephants visit houses or shacks they often behave in a peculiar way and eat things which normally would not come within the scope of their diet.

I call to mind a case of a young solitary elephant which had taken a fancy to visit certain dilapidated huts around which there was a neglected grove of bananas. The people who lived near by, Sumatra Malays, left their houses to take care of themselves and the elephant no doubt emboldened by the lack of human occupation went farther afield than the shacks and started to investigate the inside of a house recently abandoned. He pulled down the rear side of the house and feeling about with his trunk found a sack of padi (unhusked rice) which he scattered all over the place. He also upset other things in the house and pulled down a lot of clothes which were hanging on a line outside.

I visited the place the following day and could see that the elephant had thoroughly enjoyed himself!

I followed the elephant, and after tracking him for about three miles, found where he had stopped to feed and rest. Presently still following his tracks I saw an enormous heap of droppings out of which protruded a piece of cloth. I thought this rather unusual so investigated. We discovered a complete and uninjured Malay sarong—the cotton skirt worn by Malays. This had probably come off the clothes line. I told one of my men to take it to a stream which was close by and wash it. This he did. We then proceeded after the elephant. Two days afterwards I returned to the road, hunted up the owner of the house which had been raided by the elephant and asked him if the sarong was his. He said it belonged to his daughter. I explained to him that such a sarong would now have magical properties because it had been carried through the jungle inside an elephant and had been recovered. Why I told him this was because Malays attach great value to an entire *durian* fruit that is supposed to have passed through an elephant and been deposited in its droppings.

The *durian* (*Durio zibethinus*) is the fruit most valued by Malays one reason being that it is credited with being an aphrodisiac. The potency of the fruit is greatly enhanced if it has been eaten or swallowed by an elephant but not digested!

An elephant is reputed to wrap the *durian*, which is covered with formidable spikes, in some leaves and swallow it whole. I need scarcely say that I have never seen anything of the sort. But elephants are fond of *durians* and will stamp on a fruit which has fallen from the tree and pick out the pulp covered seeds from the flattened mess of spikes. I have often seen where that has been done. It is inconceivable that an elephant can swallow a *durian* whole, but I relate the fable as illustrating the credulity of Malays. So perhaps the Malay got my meaning about the sarong!

I remember an incident where some Chinese arrived at a remote spot near a newly constructed road where they wanted to undertake some mineral prospecting work. They had already had a community house erected by Malays and they turned up one afternoon with two bullock carts—it was in pre-motor days—loaded with provisions, mostly rice, which they proceeded to store in the new house.

That night a small herd of elephants turned up and investigating this alteration to the landscape proceeded to pull the walls of the house down. The walls were only palm leaves. The Chinese had heard the elephants before they reached the house, and instead of blowing up their fires and beating some of the kerosene oil tins that they had with them and generally making their presence known, which would have scared the elephants, they climbed up into the rafters of the roof! Quite the worst place they could have gone to, especially with the elephants playing about below them and quite capable in their elephantine way of pushing the house over. The elephants played about with the provisions and scattered the rice everywhere. I happened to be on the spot a

day or two afterwards—the elephants had banned the prospecting and the Chinese had gone—and found rice scattered all over the road in front of the house. I examined the tracks of these elephants and followed the trail they had made when they left the vicinity. I noticed that rice was distributed along the trail and wondered how it had got there. I followed this rice trail for a mile and then came across the remains of a sack which had contained the rice and which an elephant had obviously brought to the spot from the house. It was not much torn and I can only suppose that it had got attached to an elephant's tusk and that he was unable to shake it off. His tracks did not show signs of panic so I suppose he did not object to the sack very much. He may have carried it with his trunk. Wild elephants often carry about in their trunks bunches of palm leaves with which to beat off flies and possibly this elephant thought the sack might serve such a purpose!

I was once after an elephant which had been causing some trouble, and had killed one or two people and created a reign of terror in the district he frequented.

We had a long trek after him. He took us up to the top of a hill, which at sometime or other had been cleared by Sakai, and was now covered with an oldish secondary growth of jungle. We knew we were close to the elephant; we could smell him. Presently, when peering about through the heavy undergrowth—his tracks criss-crossed all over the hill top showing that he had been there for some time—I saw what looked like a mound of earth but of a peculiar colour. Going a little closer I saw something waving about in the air and realized that what I had mistaken for a mound of earth was the stomach of the recumbent elephant and that what was waving about was a bunch of palm leaves held in his trunk. The leaves were being used as a fly switch.

I could then make out a little more of the elephant but the ground was unfavourable and there was a large ant-hill between myself and the beast which masked my view. An approach from another direction was ruled out on account of wind. I was close to the elephant, twenty yards at the outside, and I felt sure that when he stood up, as he was bound to do presently, I must bag him. Presently the fly switch stopped waving about and I saw the elephant very slowly bending one of his hind legs. I could not see his forelegs. I realized that he had our wind and was about to jump up. Perhaps an elephant cannot jump but his extraordinarily quick movements can only be described by that word. He bent his hind leg inch by inch until he had bent it pretty well as far as it would go, and then was on his feet and had swung round away from me so quickly that I had no chance of getting a bead either on his head or behind his shoulder. He was gone. I followed him for some time and came up to him in thick jungle, when he heard me, turned round towards me, and then swung away down a steepish hill side. He was gone again. The very rapid movements of this elephant on both occasions were really astonishing and I had no sort of a chance of killing

him. Perhaps he had a guilty conscience? I did get him the next day however. I slept on his tracks and followed him up into the foothills of the main range.

I have often seen letters in sporting papers discussing the habits of elephants and in some cases disputing the fact that elephants lie down to rest or sleep except very occasionally. I do not pretend to any first-hand knowledge of the African elephant but the Malayan elephant most certainly does lie down when he wants to rest. It is one of their regular habits to lie down during the heat of the day and I have often seen them or disturbed them when sleeping. One of the chances of getting a clue to the size of a bull's tusks is to examine a place where he has been lying down to find the impression of a tusk. They favour sloping ground, the side of a low ant-hill being a common selection for the mid-day nap.

That they also doze, I would not say sleep, leaning against a tree is true but this is no substitute for their regular sleep. In following a herd I have almost invariably found the spot where they have been sleeping during the daytime—sometimes lying almost in a heap! They often lie down in the vicinity of a favourite salt-lick especially if there is a youngster with the herd.

Elephants like tapioca (*Manihot utilissima*) which is grown in some quantities throughout the Peninsula. Sakai especially favour its planting it being an easy crop to look after as it wants no attention! Elephants pull up the shrubs and eat the tubers. Complaints are sometimes made that elephants are doing damage to tapioca plantations, which generally belong to Chinese; but there is usually some contributory cause.

I recollect one case where much damage was alleged to have been done to a Chinese-owned tapioca plantation. This place was inter-planted with rubber which was more valuable than the tapioca, and both products were suffering. There were two elephants accused of this marauding but when I visited the estate only one was in residence. I shot this elephant which practically lived on the plantation. The reason was not far to seek. The unfortunate animal had been wounded by a piece of a mild steel rod two inches long, sharpened at one end, which had been fired from a twelve bore gun. This 'bullet' was embedded in the muscles of the left hind foot, the elephant having been shot from behind. He had not only a badly swollen foot but was unable to walk except quite slowly. The other elephant was shot not long afterwards by a friend of mine who found that it had a terrible drop-spear wound in its back and was no doubt badly incapacitated. These two unfortunate elephants, unable to go their usual jungle rounds, found easily obtained food on this plantation and so practically lived there. They resented being driven away. Who can blame them? Try taking a bone away from a well-fed dog and see what he thinks about it? These poor wounded animals were unable owing to the action of man to go about their lawful occasions and had to get food as best they could.

I traced the steel rod to a Malay on the plantation who was employed by the Chinese manager as a 'hunter'—poacher would be a more correct term—and it was due to his action that one of the elephants lived on the estate. The fact that the elephant had been fired at was never disclosed to me at the time I went to the plantation to look for it.

This is a playful habit Malays have after having fired at an elephant; complain of damage to crops but never disclose the fact that the elephant has been wounded.

On one occasion I might easily have got into trouble. I was asked to deal with an elephant which was alleged to have caused a lot of trouble in a small Malay settlement.

I was very busy at the time and could only spare a day. So I left my house in the early morning, while it was still dark, and motoring about twenty miles arrived at the place where a track went into the jungle, taking me to the usual conglomeration of tumble down Malay huts and poor cultivation. An elephant had certainly been in amongst the bananas and weeds and I found that he had visited this place during the previous night, so I had a good chance of getting up to him. I had to get back home that evening and my tactics in dealing with the elephant had to be based on that fact.

I made careful inquiries, and I think I must have been suspicious, because I asked if the elephant had been fired at and was assured that it had not. The truth was that it had been fired at several times and only two days before had been followed up and once more wounded. These wounds merely annoyed it because it came back almost at once to have a few more of the banana plants.

When following it up I was, of course, unaware that it had been recently wounded, but was again I think suspicious when I found that it had travelled for miles and miles from this 'cultivation', and it was not until about mid-day that we came close to it. In those days I had a Malay tracker named Mat Yasin who had been with me for some years and who understood the habits of both elephants and myself. The elephant had followed the bed of a river for a long distance and had then turned up a steep hill which he steadily climbed. We were not far behind him but he was travelling as quickly as we were. Presently he stopped, and I said to Yasin that so soon as he started to feed we must come up to him. Sure enough in a few minutes we heard him feeding on *bertam* palms on a steep hill side along which his tracks had taken us. I could see him but only got a stern view. He was feeding and slowly moving along the hill side. The wind was wrong for an approach from above him; from down hill, I could see nothing. While manoeuvring for an approach—we were within twenty-five yards of him—I saw his trunk go up and wave about in the air. I knew he had scented us and turning to Yasin made a gesture of disappointment because I presumed that he would make off and it was too late to follow him farther because I had to get back.

While my head was turned towards Yasin I was startled to hear a shrill scream from the elephant who swung round and came

straight for us. He bobbed along through the thick *bertam* following his own trail where the palms were broken down and tangled up. I was so taken by surprise that I threw up my rifle without releasing the safety catch, took it down from my shoulder to see what was the matter, then pushed up the catch. The elephant was within ten yards of me when I fired. I almost missed him merely hitting him on the side of the face. Fortunately, that was not to his liking. He threw out both of his forefeet and slid along towards me doing his best to put the break on and pull up. I also was anxious to prevent him running into me so jumped down the hill side. As I turned, when clear of the track, I saw his stern disappearing up the hill. But he did not go far. I heard him stop, and no doubt he intended to fight, having got over the shock of the pain on the side of his face and the flash of the powder just in front of him. I reloaded, scrambled up the bank and almost at once saw him standing sideways on somewhat above me and about twenty yards away. I gave him both barrels behind the shoulder which finished the hunt. But it was quite close enough to be exciting.

Later on I measured where he had stopped and turned up the hill and found that he had slid along about five yards and actually came within six yards of where I had been standing. There were great furrows where he had tried to dig his toes in to stop himself.

This elephant was another victim of the indiscriminate shooting of Malays. He had only one tusk, the other had been broken off owing to a wound in the base of the tusk sheath; a nasty mess of suppuration and diseased tusk being in the socket.

His good tusk had been hit quite recently by a bullet and chipped near the gum. He had several fresh body wounds, mostly flesh wounds. What these unfortunate animals must suffer from these ill attempts to kill them is beyond estimation. No wonder they become rogues. The marvel is that one does not hear of more people being killed.

This is merely one instance amongst many that have been experienced by hunters who have gone after elephants wounded by Malays. A friend of mine was very nearly killed under similar circumstances.

I have in my house a collection of skulls of mature bull elephants and nearly all show signs of old bullet wounds. It is by no means uncommon to hear of elephants being killed with only one tusk, the other damaged or broken off short due to suffering from old wounds.

Elephants when unwounded are not difficult to drive away from cultivation; but when wounded become a very different proposition. The entire question of damage to crops by elephants is intimately connected with the large distribution of guns to Malays and the encouragement given to them to fire at elephants if in the vicinity of 'cultivation'. Elephants undoubtedly become a nuisance and a danger under such circumstances, but the ball is started rolling by irresponsible persons who will cheerfully fire at elephants and then leave them to their fate. Very few Malays would think of following up a wounded elephant, and when firing

at one will generally aim anywhere. Although there is a legal obligation on the person who wounds an elephant to report the fact, in actual practice they seldom if ever do so, with results similar to what I have related.

On one occasion I had a few uncomfortable moments when an elephant which I had fired at for the temple shot, but had failed to kill, came back on his tracks—running away, not charging—and got far too close to me to be comfortable. As he came back on his own track I fired at him again and then with an empty rifle nipped behind a big tree. He came as far as the tree, where I had been standing for some time, and stopped. At this exact spot he got my wind for the first time. Here was I with an empty rifle crouching behind this tree, with the elephant on the other side of the tree swishing his trunk about in the dead leaves trying to locate where the nasty smell came from. Fortunately his trunk did not come round the tree. He presently moved away and shortly collapsed. My second bullet had taken him through the trunk, down his throat, and finished up in his liver.

When one has hunted elephants as long as I have, especially in the dense jungles of Malaya, adventures are bound to come along at times. The man who always kills an elephant with one shot is not a hunter but a liar. It is the adventures that are the real attraction of the chase, besides one can always fight one's battles over again. As Sir Richard told Una in Kipling's story of 'Old Men at Pevensey'—'We talked together of times past. That is all men can do when they grow old, little maid'.

Just one more hunting incident. I was hunting in the mountains and came across the tracks of a sizeable elephant which I followed. He was an old beast with rounded front toe nails, but shortened by much hill climbing. An old elephant in the low country will have long toe nails because the older he gets the more he puts his weight on his heels.

It took me six days to get this elephant. He crossed the main range of the Peninsula three times. Twice he got our wind. That appears to have given him a fright and he travelled a long way. On one occasion we were climbing up a rocky gully which by some conjuring trick the elephant had scrambled up, feeding on wild bananas on the way. He was someway up the mountain and we were not very close to him, but the wind blowing up the gully must have given him a concentrated dose of human scent, well accentuated by our exertions. When we arrived at the head of the gully we found that he had rushed off, followed a ridge for a short distance and then hurled himself down a hill side almost as steep as the gully we had just come up. In his blind rush he went straight through a grove of the deadly *buloh semilian*, (*Dendrocalamus giganteus*), a bamboo which fractures with an edge as sharp as a razor, and normally avoided by elephants except when throwing out new shoots. He got a very nasty cut on his trunk for his panic, and bled freely. The wound, about three inches long, was still wide and gaping when I bagged him a day or two afterwards.

On the last day but one he left the mountains and following one of his old trails came to a place where we had, two or three days before, stored some rice to be picked up if we required it on the homeward journey. We had also stopped there to cook some food. He came to the tree where the rice was kept but was more interested in the ashes of our fire than the rice which he did not touch. Had he destroyed the rice we could not have followed him for the full six days because my carriers would have been out of food; he missed his chance and lost his life. After rummaging about amongst the ashes of our fire he turned off the track and went straight up the mountain again. When we did get up to him he was right on the watershed of the main range in rough country, where manoeuvring was out of the question; one could not follow his trail until close to him. About mid-day on the sixth day, we were climbing up the mountain side following an old elephant path which wound about trying to avoid the steepest places, when we heard him far above us. The only thing to do was to carry on along his tracks, but the broken nature of the ground with many wind eddies following the gorges gave him a good chance of getting our wind before we could get near him.

But our luck was good and gradually after some stiff climbing we were close to him. His trail followed a steep hill side round the head of a gully and following this we saw his enormous hind quarters across the gully. His head was hidden and any approach seemed impossible. He was right on the end of a little spur.

For once, when hunting, the wind did me a good turn. He got our scent; he could not go over the spur so slowly turned round no doubt intending to return by the trail we were on. As he turned he stopped for a brief second and gave me a perfect shot which I was not slow to avail myself of. He slowly sank to his knees and settled down into a sitting posture. He had a good pair of tusks weighing 75 pounds the pair. It was a long trek back to my main camp but nothing mattered now that the elephant was bagged and it had been a hunt never to be forgotten. That sixth day must have been the last day I could have followed him; our provisions were too low to allow me to go farther from my base. I may consider that I had great luck in bagging him at all, and he had had bad luck in not finding my caché of rice.

At times during periods of sexual desire elephants must come to trials of strength; but in all my years following elephants in the jungle I have never come across elephants fighting nor have I seen places where such fights have taken place.

The nearest I ever came to it was on an occasion when I was following a herd of elephants and became aware that overlaying the tracks of the herd was that of a fair-sized bull. There was a bull in the herd I knew, and it looked to me as if this second bull had either been told to keep his distance or was anxious to force his way into the herd. As we came nearer to the elephants we heard trumpet after trumpet and I hoped to have the thrill of seeing an elephant fight. But I think the trumpeting was solely from the following bull screaming in impotent frustration. He

hadn't the guts to force an issue perhaps? But he felt he had to take it out of something and presently he had his revenge on a tree!

He rushed at a soft wood tree of about 12″ in diameter and by a mighty thrust split it in two. He drove so hard that he cut his gum on the fracture of the tree leaving a large blood smear where his tusk had entered. Well, I hope he felt better after that; we all know the benefit that accrues from letting off a little steam at times.

But elephants use their tusks in more useful ways than as safety valves. I remember seeing a coconut tree which had been pierced by an elephant's tusk and actually uprooted. This was done, I think, by accident, because the elephant having driven his tusk into the tree could not get it out again and in his struggles pulled the tree up. I felt sure that was what happened because he carried the coconut tree, presumably still stuck on his tusk, a distance of about thirty yards, where he got rid of it. This little diversion had shaken him so much that he did not wait to eat the coconut cabbage, the whole object of his attack on the tree, but left the place where the coconut tree had hit back, and cleared into the jungle.

Animals do sometimes attach any difficulty they get into to the place or locality that they are in and leave it as quickly as they can. I had a *siamang* gibbon (*Hylobates syndactylus*) for many years as a pet and this was a strong trait in his character.

Elephants sometimes uproot trees or push them over when suffering pain from wounds. At one salt lick where I went sometimes to search for tracks I picked up, on one occasion, the tracks of a big elephant which had been venting his rage or searching for relief from pain by knocking over trees in all directions. Although this elephant's tracks were only 24 hours old I never got up to him despite the fact that I followed him for six days. No doubt his abnormal restlessness was due to pain. He finally after leading me over a great extent of country came back to the lick, and as I was no nearer to him then than I was when I started, I went home.

I got this elephant the following year and as one of his tusks had been broken off short and there were recent lesions in the skull in the vicinity of the base of the tusk I connected his behaviour the previous year with these wounds.

It is not a very uncommon thing to bag a bull elephant that has lost its tail or part thereof, I have shot three whose tails have been so mutilated. Malays believe that the bull elephant loses part of his tail by the action of a jealous female which taking him at a disadvantage pulls his tail until it breaks!

It seems to me more likely that these mutilated tails are due to the attacks of tiger when the animals are still young. Tigers do attack young elephants even when nearing maturity. I was hunting at one time up a river where seladang were often to be found. I had made camp and as it was only five o'clock on a fine afternoon I thought, as I had been in a boat all day, that a little exercise would do me good. So I went up the river to a

large abandoned clearing where seladang sometimes fed in the evening. When coming round a bend in the river I saw an animal moving along a sand bar coming towards me. I could only see the top of its back from where we stopped. I climbed up the bank and sure enough there was a young female elephant coming along slowly on the edge of the river. Presently the elephant entered the river and started throwing water all over her, then reaching the opposite bank found a mud hole and squirted the mud all over her back. She looked rather peculiar and examining her with my glasses—she was fifty yards away—I discovered that her right ear was half torn off and her flank was badly scored. These wounds must have been the work of a tiger. She looked pretty woebegone as she passed into the jungle and went on down stream. We had come about half a mile from camp and if she continued the way she was going she would bump right into my camp.

There were three men in my camp and this is what they told me when we got back. One of them had gone down to the river to get water, when looking up stream he saw an elephant only a few yards from him. He did not bother about the water but made best time up the bank, told the others what he had seen and shinned up a tree which was just in front of my tent. The others wasted no time and did the same thing. They were hardly well settled in the branches of this tree, well out of the way of all elephants, when the elephant appeared directly opposite them, crossed to a sand spit where my boat was fastened up, passed the camp and came to a clothes line on which there were some clothes. Here she stopped and the men up the tree in the valour of their ignorance shouted at her. They were quite safe but they never thought of the camp. That shout was too much for her nerves; she gave a little squeal and ran up the bank using the steps I had had cut and arrived actually at my tent door and directly below the tree which sheltered the three brave men

She stopped there a moment and then slowly walked into the forest. She touched nothing, and I was extremely lucky.

Next day I went down the river. During the night the elephant had followed the river for about ten miles, no doubt frequently bathing her sore body. At one place she had lain down on the wet sand. Finally she joined up with the fresh tracks of a herd, which had come from up-river but had not followed it. I expect that this was her herd from which she had been 'cut out' by a tiger.

In addition to the danger to cultivation from wounded elephants travellers in the jungle are also liable to suffer from their depredations.

A river which I sometimes travel up to visit salt licks is frequented by a small herd of elephants that undoubtedly had for sometime a wounded or seriously incapacitated elephant amongst their number. I noticed more than once a peculiar track mixed up with the normal tracks of the herd, and came to the conclusion that one of the elephants had a damaged hind leg, or was hurt

in some way so that it had not proper control over one of its hind legs.

Subsequent to noticing this I was camped on the river bank, on a site often used by me, and having occasion to go farther up the river left some canned provisions and three drums of benzine, well hidden as we thought, in the jungle near the camp site. I was thinking of human marauders, not elephants.

When we came back some five or six days afterwards we found that some elephants had visited the site, had carefully hunted out our 'well hidden' benzine tins, stamped them flat, and finding the provisions proceeded to scatter them about with a malicious thoroughness worthy of a better cause.

The frame of my camp was smashed to pieces and to complete the insult an elephant had tried to make a wallow just in front of where my tent was usually erected.

I had frequently used that camp site and elephants had often been around but, with one exception which I will presently relate, no elephant had ever come close to my camp. Not long afterwards a dead elephant was found on the river bank within a few miles of this spot. It was one of the herd that had raided my camp site and I believe it is permissible to suggest that the herd, normally of good behaviour, were incited by the presence of a wounded elephant to forget their usual good manners.

The other incident was more exciting because we were in camp at the time. At about 2 a.m. I was awakened from a sound sleep by my tent coming down on top of me. I thought that the branch of a tree had fallen on my ridge pole and broken it, and jumping up with a shout I struggled from under the canvas.

A couple of tapir had been round the camp the previous night and one of my men who slept close by, hearing a noise, got up with his electric torch and came towards my tent thinking that he was going to see a tapir or possibly two.

But he got a severe shock when he heard a crack, saw one end of my tent collapse, and the hind quarters of a smallish elephant disappearing into the jungle.

Investigations next morning showed that this elephant, a small tusker still in the playful stage, had come out of the jungle, walked along beside the wall of my tent, then investigated my cook shed which he did not seem to appreciate, turned back following the same route and passed behind my tent the back of which he proceeded to examine. I still slept! While doing this he knocked over a tin dipper which clattered to the ground. This scared him, and turning round hit my tent pole with that part of his anatomy which should never be used as a weapon, and broke it in two. Down came my tent but by that time he was well and truly frightened so made tracks for the jungle. The herd was not far away but the little bull had wandered off by himself as they so often do.

This happened before there was a wounded elephant in the herd, so far as I know.